

Smith Branch Monitoring Sites

Monitoring Data Summary for July 26th, 2019 – August 28th, 2019

Data Gaps

- The SMIA station experienced a brief period of turbidity fouling from August 16th-18th. This period of turbidity data was deleted from the dataset.
- The SMIB datasonde was only in the field for a few days at a time during monitoring period, due to low stage in the creek. Even on the days it was in the field, some of the sensors were not submerged. Because of this, there are several data gaps in the water quality data.
- The monitoring website experienced reporting issues with the CS451 pressure transducers at SMIA and SMIB for a brief period on July 28th, therefore there is no CS451 stage data record for that period.

SCDHEC Standards

- The SMIA station did not record any pH values outside of the acceptable SCDHEC range of 6 to 8.5. The SMIB station recorded a maximum pH value of 8.6, which is slightly above the acceptable SCDHEC range.
- The SMIA and SMIB stations recorded average DO concentrations of 6.4 mg/L and 8.2 mg/L, respectively, which are both well above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentrations recorded at the SMIA and SMIB stations were 4.0 mg/L and 7.6, respectively, which are above the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The SMIA station recorded 3 storms (at least 0.1 inches) in this monitoring period resulting in 0.8 inches of precipitation. The SMIB station recorded 4 storms (at least 0.1 inches) resulting in 1.1 inches of precipitation.
- The Smith Branch monitoring stations both recorded typical water quality responses to the storm events observed during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inch) was approximately 11.7 days at the SMIA station, occurring prior to the August 4th storm event. The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inch) was approximately 18.0 days at the SMIB station, occurring prior to the August 22nd storm event.

Potential Illicit Discharges and Abnormal Events

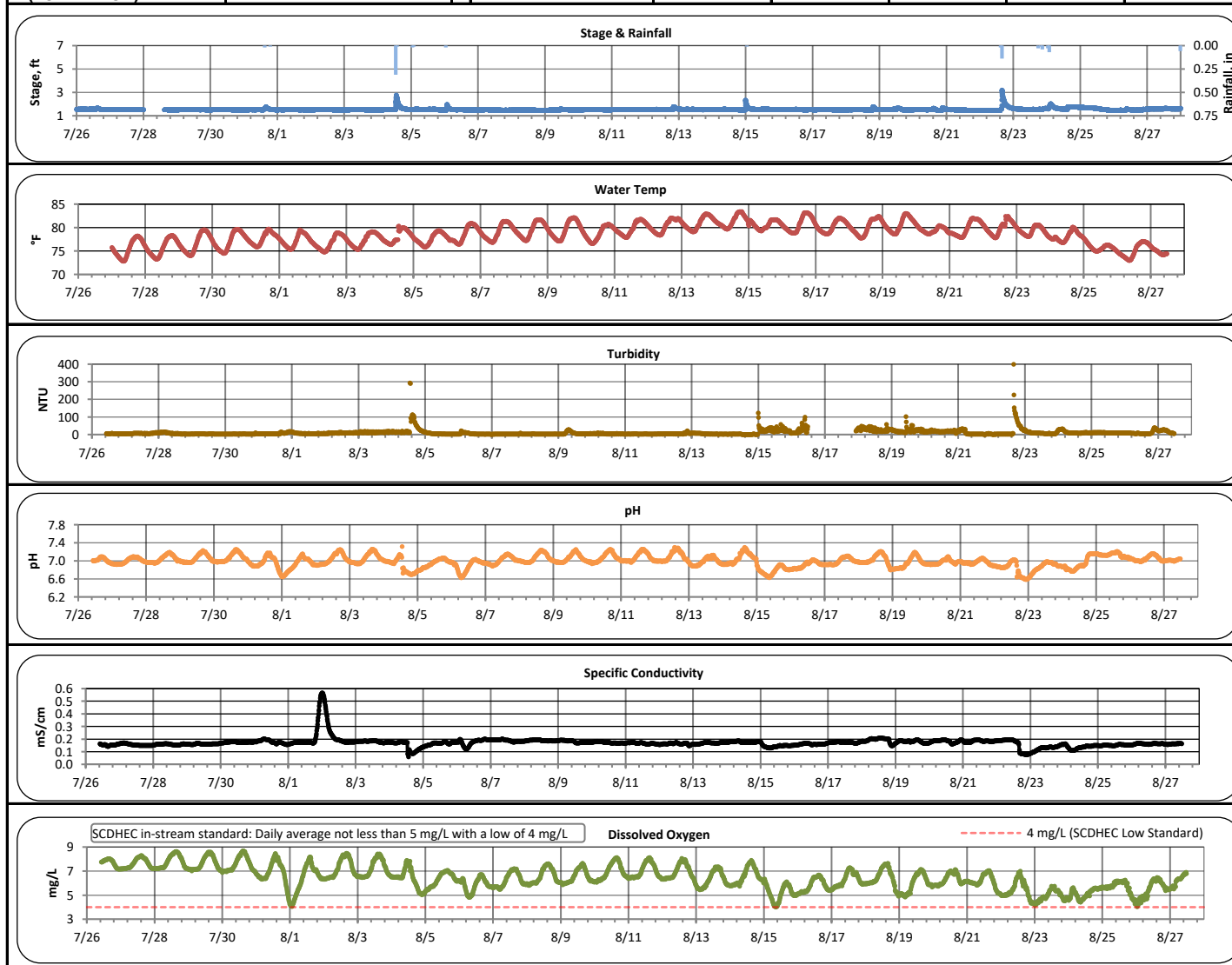
- There were no potential illicit discharges or abnormal events in the Smith Branch watershed during this monitoring period.

Flow Measurements

- No flow measurements were taken in this watershed during this monitoring period.

Smith Branch A (July 26, 2019 -- August 28, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.5	3.2	1.5	1.5	0.1
LOCATION:	Earlewood Park	TEMPERATURE (°F):	73	83	79	79	2
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	1	399	7	11	17
COORDINATES:	34.027289,-81.04265	pH:	6.6	7.3	7.0	7.0	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.06	0.566	0.171	0.172	0.038
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.0	8.7	6.4	6.4	1.0
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	3						
MAX. DAILY RAINFALL:	0.3 inches						
TOTAL RAINFALL (FOR PERIOD):	0.8 inches						



Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

**Continuous Water Quality
Monitoring Periodic Report**

Smith Branch A (July 26, 2019 -- August 28, 2019)

Explanation of Statistics:

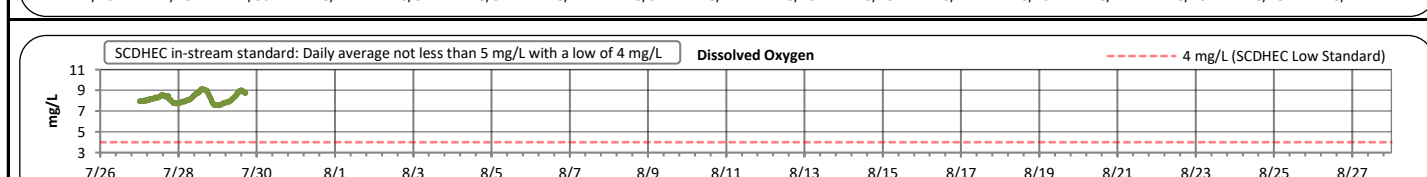
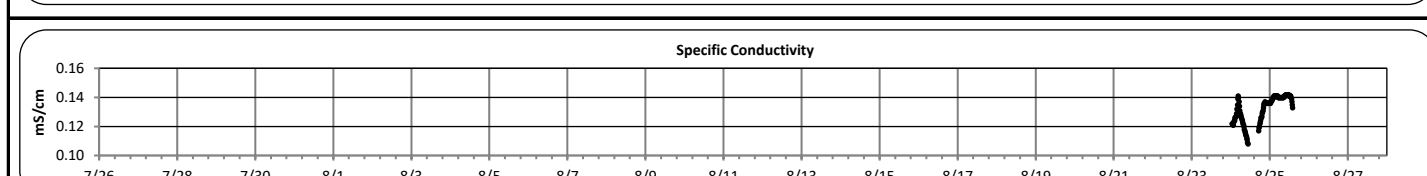
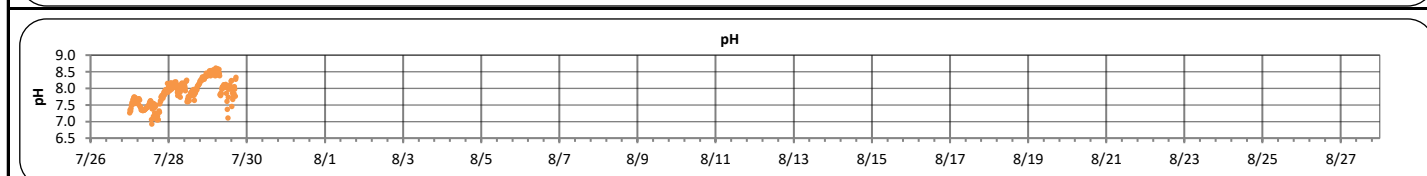
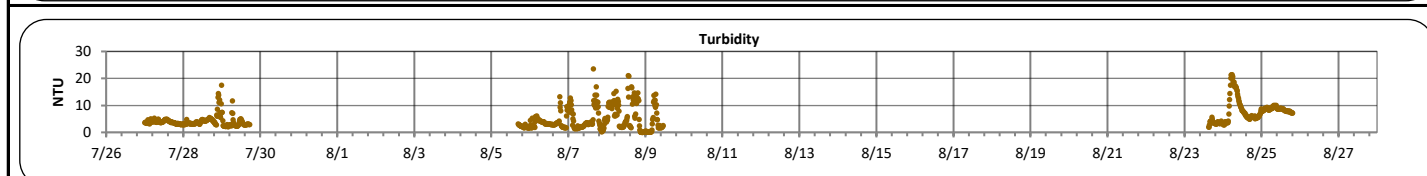
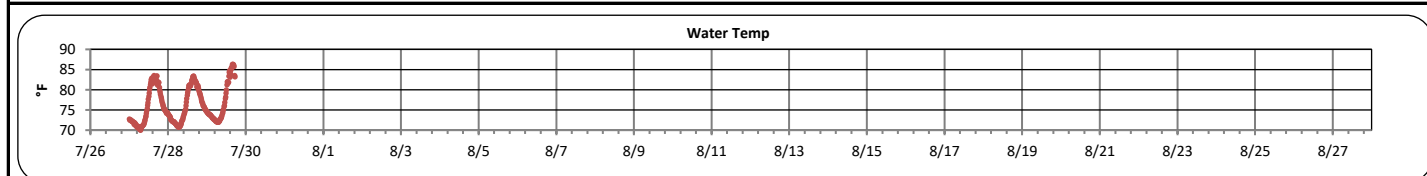
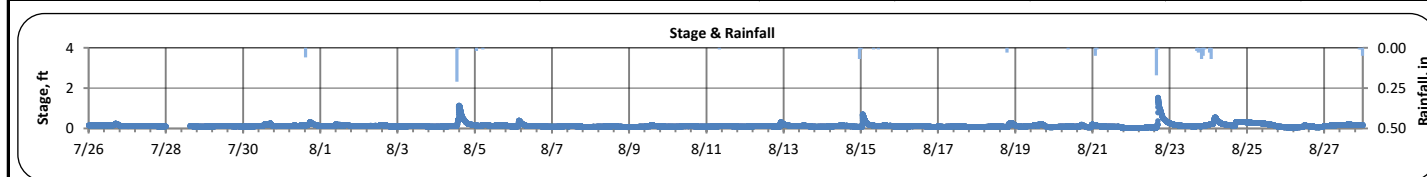
MINIMUM OBSERVED	The minimum of the values recorded by the datasonde in 15 minute intervals.
MAXIMUM OBSERVED	The maximum of the values recorded by the datasonde in 15 minute intervals.
MEDIAN OBSERVED	The median of all the values recorded by the datasonde in 15 minute intervals.
MEAN OBSERVED	The average of all the values recorded by the datasonde in 15 minute intervals.
STANDARD DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

Grab Sample Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Smith Branch B (July 26, 2019 -- August 28, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	0.0	1.5	0.1	0.1	0.1
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	70	86	75	76	5
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	1	24	4	5	4
COORDINATES:	34.037933,-81.0591	pH:	6.9	8.6	7.9	7.9	0.4
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.108	0.142	0.136	0.133	0.009
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.6	9.2	8.2	8.2	0.4
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	0.2 inches						
TOTAL RAINFALL (FOR PERIOD):	1.1 inches						



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**Continuous Water Quality
Monitoring Periodic Report**

Smith Branch B (July 26, 2019 -- August 28, 2019)

Explanation of Statistics:

MINIMUM OBSERVED	The minimum of the values recorded by the datasonde in 15 minute intervals.
MAXIMUM OBSERVED	The maximum of the values recorded by the datasonde in 15 minute intervals.
MEDIAN OBSERVED	The median of all the values recorded by the datasonde in 15 minute intervals.
MEAN OBSERVED	The average of all the values recorded by the datasonde in 15 minute intervals.
STANDARD DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								